

# **THE ECONOMIC IMPACTS OF FILM & VIDEO PRODUCTIONS IN WASHINGTON STATE**

A Report for the  
Washington State Film Office

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## 1. EXECUTIVE SUMMARY

While not a highly visible industry in Washington, film and video production in the state is quite large—according to the most recent data available (2001), amounting to over \$316 million a year. The production of films, videos, television movies, commercials, and commercial still photography in Washington had the following impact on the economy of Washington State:

- Film and video production supported 8,033 jobs in the state.
- Washington enjoyed over \$656 million in additional economic output because of film and video production.
- Local labor income was \$260.9 million higher in 2001 than what it would have been in Washington without film and video production.
- State and local communities in Washington collected \$18.4 million in additional taxes due to film and video production.

What is critical to understand about this analysis is that these are **net impacts**. They tell us how much better off the state was because of the activities of the film, video, and commercial photography industries. They are net benefits because without these industries Washington businesses would have hired firms in other states and even other countries to do filming and other related work, thus, causing an economic drain to Washington. Without these industries in Washington most production companies who came to the state because of its great locations and quality workforce would have gone elsewhere to shoot, thus, spending their money elsewhere.

Film and video production is a labor-intensive, high wage economic activity that responds quickly to a favorable business climate and does so with minimal impacts on infrastructure. It employs skilled workers, many of whom are trained in creative arts and technical skills that are not readily transferable to other industries. Without a viable and significant domestic industry, Washington State would lose much of one of its most productive segments of its labor force and do so at great long-term economic cost. Students graduating from local high schools who are interested in film and video production would be inclined to move out of Washington to pursue their careers. In a sense relegating Washington to having its schools educate and train future film and video production professionals for California, British Columbia, New York, and other places with favorable business climates for this industry.

## 2. INTRODUCTION

This is a report on the economic impacts on Washington State that result from the production of feature films, television movies, videos, commercials, and commercial still photography, which we hereafter refer to as “film and video production.”

ECONorthwest, the leading economic research firm in the Pacific Northwest, conducted this analysis on behalf of the Washington State Film Office using data primarily from federal government sources and other independent sources.

This report describes the methodology and data used by ECONorthwest. It concludes with assessments of the impacts that film and video production have had on employment, wages, economic output, and taxes in the State of Washington. All dollar values and employment estimates used in this report are for 2001—the most recent year for which complete economic data are available.

### 2.1 Why Should State Government Measure These Industries?

Businesses that engage in film and video production are free to choose from a wide selection of locations for filming. The State of Washington has a plethora of good locations and scenery, but it competes with neighboring states and provinces, which also have good locations. To obtain a fair share of the business, the state needs to sell Washington as a friendly, trouble-free, and cost effective place for production companies to work. However, the question sometimes arises whether this effort is worth it. Therefore, it is useful to periodically measure the size and impact of film and video production on the State of Washington.

Producers of movies, television programs, videos, commercials, and commercial still photography that are not tied to specific news or sports events generally can choose their locations. Unlike farmers, manufacturers, or businesses with office workers, they do not have a large, fixed physical plant that mandates that they produce their work at their own facility. Instead, crews routinely travel long distances to find locations that suit their needs and the budgets of their clients.

Although Washington-based producers naturally prefer Washington locations, they must bend to the demands of the market in choosing where they will shoot—and like any market, demands are influenced by costs, familiarity, and accessibility. Therefore, a state can stimulate more in-state production by influencing market demand. Producers want good affordable locations, a streamlined permitting process, and experienced professional local cast, crew, and support services. This is equally important for productions from out of state.

Why should the government do this? Quite simply no entity in the economy other than the state government has a vested interest in promoting Washington State locations. Private sector companies, for instance, may suggest to a client a Washington location for a shoot, but that client could just as easily choose British Columbia or Idaho. Without some level of promotion backed up by an office to service production needs the tendency is to go where they are welcomed and where production can be done on time, on budget, and with a minimum of extraneous hassle. In short, the best entity to market Washington is the State of Washington itself.

By making Washington an easy and attractive place to film, the State benefits by stimulating employment and tax revenues for comparatively little incremental expense to government. The returns happen quickly because location decision-making is often measured in weeks, not years.

In the longer term, features, television commercials, and still photography that show Washington scenery stimulate tourism. In effect they become advertising that carries the message that Washington is special. People around the world see these messages and respond. This is a type of advertising that costs the state and its tourism industry very little and has lasting effects. Finally, as more productions are shot in Washington by local and out of state crews, the size of domestic or in-state industry grows, as will its support infrastructure.

## 2.2 Defining the Industry

At first glance, one would think that the film, video, and commercial still photography industries would be easy to define. However, the line between what belongs in the industry and what does not belong is quite blurred.

For instance, an actor who is a paid employee of a movie production company clearly would be considered part of the film & video industry. However, when that same person works for a live stage production, they do not count as being part of the film and video industry. Furthermore, if they are self-employed and work on a film, but are not paid as an employee of the film's producer, their self-employment industry is as a performer, not as a film production person and they would not be counted directly as part of the industry. ECONorthwest worked around this problem by measuring the expenses of the local film industry. Doing so allowed us to pick-up the income of such self-employed performers as an indirect output of the industry.

For this report we define film and video production as the recording of moving or still images for theatrical, commercial, or educational purposes. News and sports events are excluded because rarely do producers have a choice of locations for recording them. Likewise, portrait and private event photography are excluded.

Clearly a corporation with workers and establishments in Washington State whose primary line of work is in the film, video, or commercial production business belongs in the definition used in this report. However, many other entities are engaged in these lines of work and routinely make location decisions.

Besides corporations, there are about 1,800 self-employed individuals living and working in Washington State who engage in film and video production. Critically important too are the out of state companies who come to Washington to produce films and videos, or to do commercial film and photo shoots. Finally, other industries, ranging from manufacturers to television broadcasting stations, do some film, video, and commercial still photography in Washington for their own “in-house” purposes.

Collectively the output and employment from film and video production by all these entities constitute the industries, which are the subject of this report. ECONorthwest collected data and made estimates for each component using the best data available. The total direct spending was calculated and then used to derive their impacts on Washington State as the spending by the industries and their workers flow through the State’s economy.

In summary, ECONorthwest determined the revenues, self-employment earnings, and payrolls for the following components of film and video production:

- Business establishments in Washington with employees that are primarily in the film and video production, film and video postproduction, and commercial still photography industries. In this report, we refer to the production of these businesses as the **“domestic industry.”**
- The local spending and hiring by groups, businesses, and individuals based outside of Washington who came to the state in 2001 to produce a film or video, or to conduct commercial photographic shoots. They are called **“out of state crews”** in this report.

For competitive reasons, expenditures by individual productions are highly guarded figures. ECONorthwest tallied confidential production cost data for individual productions in the state. In some cases, we made estimates of those that did not reveal their expenditures using industry guidelines. For example, the average TV show spends about \$85,000 a day on location. For a single episode of a show a shoot may last 7 to 14 days. High-end feature films spend \$100,000 or more per day on location. Low budget films and documentaries will spend between \$15,000 and \$35,000 a day. Local spending on television commercials usually runs from \$50,000 to \$100,000 a day. Still photography shoots average about \$25,000 a day.

- The economic output of business establishments in Washington that are not in the film, video, or commercial still photography businesses, but who do some of their own film and video productions is referred to as **“in-house production.”**
- Freelancers and other self-employed Washington residents who engaged in film and video production during 2001 and reported their earnings to the Internal Revenue Service. They are called **“freelancers”** in the report.

- Original entertainment television and cable programming by broadcasters based in the state and scoring for films by Washington-based musicians are included under in-house production.

Individuals, crews, and companies in these industries produced the following types of products in Washington during 2001:

- Feature films
- Movies for televisions
- Direct to video programs and movies
- Animation on film or video
- Original local television and cable programming other than news or sports shows
- Television commercials and print advertisements
- Documentaries
- Religious programs
- Training, educational, and instructional videos
- Photographs for catalogs, print advertisements, and magazines
- Photography by manufacturers for use in brochures and manuals
- Components to complete film, video, and commercial photography products (postproduction services) such as musical scoring, editing, printing, and captioning.

What the definition does not include are activities that relate closely to film and video production, but whose final products are not normally recorded as images for theatrical, commercial, or educational purposes. Among the sectors excluded are:

- Live theater
- Dance and music performances
- Radio
- Cable television systems
- Sound recording other than scoring for films and video
- Televised football games
- Makers of software and video games
- Books, comics, magazines, and other printed media (commercial photography is an input into these sectors, however)
- Movie theaters
- Portrait photography
- News and private event photography

- Local cable news shows
- Film and video distributors

## 2.3 Three Industry Codes

The US Census collects data for industries, which it categorizes along the North American Industry Classification System or “NAICS” code method. The film, video, and commercial photography industries analyzed by ECONorthwest fall into three NAICS codes. They are:

- 1) **NAICS 51211:** The motion picture and video production industry comprise establishments primarily engaged in producing motion pictures, videos, television programs, or television and video commercials. It does not include movie distributors, video retailers, or theaters.
- 2) **NAICS 51219:** Postproduction services and other motion picture and video industries comprises establishments primarily engaged in providing specialized motion picture or video postproduction services, such as editing, film/tape transfers, scoring, subtitling, credits, closed captioning, and computer-produced graphics, animation and special effects, as well as developing and processing motion picture film.
- 3) **NAICS 541922:** The commercial photography industry comprises establishments primarily engaged in providing commercial photography services, generally for advertising agencies, publishers, and other business and industrial users. This excludes such activities as news, portrait, and wedding photographers.

## 2.4 Industry Structure

Film and video production is done by networks of individuals, small businesses, and sometimes large companies that operate under highly flexible structures. It is somewhat akin to the construction industry.

Productions are short-term coalitions. For example, a production company filming a movie may only have a small number of direct employees, but will typically hire large numbers of self-employed (freelance) technicians, local caterers, actors, camera crews, and various subcontractors who come together to work for periods as short as a few days and usually no longer than a few months.<sup>1</sup> In Washington, productions are rarely done entirely by single firms working alone. Even for small projects it is common to see teams of firms and freelancers working together. For out of state producers, it is often more efficient to bring in local experienced professional help on an ad hoc basis than it is to fly or drive in employees from out of state.

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<sup>1</sup> Coe, Neil M., “A Hybrid of Agglomeration? The development of a satellite-Marshallian industrial district in Vancouver’s film industry.” *Urban Studies*. September 2001. Page 1753.



Individuals and firms will work on several different projects over the course of a year. In doing so, they can, in good times, assemble the equivalent of a full year's employment. When there is a paucity of projects in Washington, they must go to other states or countries for work, be unemployed, or find temporary employment in other industries.

Collectively most of the products of these industries are either sold to buyers in other states or made for Washington based firms who, if they could not find a local firm to produce the product, could easily go out of state to get the job done. Thus, the dollars that fuel film and video production act primarily as exports. Given that productions have high local spending contents and pay fairly good wage rates, their impact on the economy of Washington is highly stimulative.

## 2.5 Method Used to Measure Economic Impacts

ECONorthwest used its measurements of film and video production in Washington to drive an economic model that calculates what the ultimate impacts of these industries were on the State's economy in 2001. The type of model used for this is called an input-output model. ECONorthwest used a popular version of this known as the IMPLAN (for IMpact Analysis for PLANing) model.

Input-output models are mathematical representations of an economy. They show how various parts of the economy are linked to one another. IMPLAN models are widely used by universities, governments and businesses. It was originally developed by the U.S. Forest Service to assist federal agencies in their land and resource management planning. For this report the IMPLAN model for Washington was used.

Two sources of data are particularly central to the IMPLAN models: the National Income and Product Accounts published annually by the U.S. Bureau of Economic Analysis (BEA) and the BEA input-output model for the United States. The IMPLAN model for Washington was derived from the national model and local economic data. ECONorthwest enhanced the precision of the standard Washington IMPLAN model by incorporating data it estimated for the industries of interest in this report.

## 2.6 Types of Economic Impacts

There are several types of economic impacts. Below are the definitions of the more common measures:

- Output: For each industry, IMPLAN reports total output. Output is approximately the same as total sales or revenues. There are two major exceptions—retailing and wholesaling. For these, output is basically the difference between what retailers and wholesalers buy goods for and how much they sell them for.

- Personal income: This is the sum of employee compensation and proprietors' income. Employee compensation includes workers' wages and salaries, as well as other benefits such as health and life insurance, and retirement payments. Proprietors' income is money made by the self-employed and small business owners. It includes the earnings of freelancers and partners in small production companies.
- Other Income: These are payments to individuals in the form of rents received on properties, royalties from contracts, dividends paid by corporations, and profits earned by corporations.
- Jobs: The number of jobs is measured by IMPLAN as the sum of proprietors, partners, part-time workers, the self-employed, and fulltime paid employees. Thus, IMPLAN mixes full and part time jobs—weighing them equally. Because of this, you cannot calculate the average annual wage from IMPLAN.

ECONorthwest had to estimate the number of jobs for film and video production—especially by out of state crews—by first determining the number of full-time equivalent (FTE) jobs and then applying a ratio of jobs to FTE's, which in Washington is approximately 1.19-to-one. Because one individual may work on several, even more than a dozen, individual productions in a year, we used this method to convert large numbers of very short-term employment periods into what would statistically be a normal year of employment for a generally fully employed person in the industry.

- Direct Impact: The direct impacts are those arising from the initial spending by the film, video, and commercial photography industries, such as money spent to pay employees and contracted workers, to buy goods and services, and to pay for rent and permits.
- Indirect impact: When businesses and governments that supply the goods, services, permits, rents, and other things to an industry in turn buy goods and services from other places, indirect impacts are generated. So, for example, if a movie production company buys food from a Washington caterer, that is a direct impact. However, because of that direct spending, the caterer buys food from a Washington supplier. That purchase is an indirect impact. Further spending, such as the supplier buying from a local farmer, stimulates additional indirect impacts for the state.

- Induced impact: Besides spending effects, the extra incomes earned by workers and business owners because of film and video production also filter through the economy, these are called induced impacts. For example, the higher profits and wages earned by the catering business that supplied the production company puts money in the pockets of the caterer and his or her employees. When they spend this extra money that they earned in Washington to buy various local goods and services, they generate induced impacts for the state.
- Leakage: Leakage is not an impact measurement, but it is an important factor in IMPLAN modeling. Leakage occurs because not all the money earned in the state economy is spent in Washington. If in our example, the caterer buys some produce for the film & video crew from a farm in California, then the money used to pay the farmer provides no indirect impact to Washington — it leaks away. Likewise, employees will spend some of their wages out of state or save some of it. These too are sources of leakage.

### *2.6.1 Counterfactual*

IMPLAN models report gross impacts. In other words, they calculate all the impacts that can be traced back to the initial stimulus, which in this case is the spending on film and video production. Thus, it answers the question—how much of the economy is tied to this industry? That is not the same as the question—how much better off is the economy because of the industry? For that one would have to model the economy both with and without the industry and then subtract the two. That “without” estimate is called the counterfactual scenario.

In most cases the counterfactual is quite significant. For example, if we were to model the impact of a restaurant, the counterfactual scenario would tell us that much of the money consumers spent at the restaurant would have been spent anyway on eating out or at home if the restaurant did not exist. Thus, the net impact of the restaurant is much less than its gross impact.

Past research by ECONorthwest indicates that the counterfactual scenario for film and video production is very small. For out of state crews there are virtually no counterfactual effects, because if they do not film in the state there is nearly a 100 percent loss in direct spending. For the domestic industry the counterfactual is also very small. If there were no commercial photographers in Washington, for instance, most advertisers would simply hire firms in other states. The absence of a domestic industry would not free-up local consumers and businesses to spend their money elsewhere in the state. For these reasons, the counterfactual scenarios for film and video production are negligible. Therefore, ECONorthwest considers the economic impacts reported here to be basically net impacts.

### 3. INDUSTRY DIMENSIONS

ECONorthwest relied primarily on four data sources to estimate the size of the industry. They are the U.S. Economic Census, covered employment & payroll data from the Washington State Employment Security Department, out of state production spending reports from the Washington Film Office, and occupational surveys by the U.S. Bureau of Labor Statistics.

#### 3.1 Data Sources

The main data source for the analysis was the Economic Census, which is published by the U.S. Census. We believe their statistics are the most complete because they contact all entities and use sources, such as IRS tax filings, to capture data on self-employed workers who are normally not counted in employment data. The Census reported the number of establishments, total revenues, employment, and payroll in 1997 for Washington businesses in the three NAICS codes, which are the subject of this report. The Economic Census also provided revenues and establishment totals for non-employer businesses, which consist mostly of self-employed freelancers and unincorporated partnerships.

The Economic Census is conducted every five years. The last Census for Washington was done for the year 1997. ECONorthwest projected the Census data to the year 2001 using covered employee payroll, establishment, and employment statistics for the three NAICS codes graciously provided to ECONorthwest for this research by the Washington State Employment Security Department—a State agency that monitors employment trends.

Covered payroll data is a fair proxy for the Census, especially when projecting data out over a short period of four years. The Employment Security Department counts all workers who are covered by unemployment insurance, which are all the employees of businesses in the film, video, and commercial photography industries. However, it does not capture uncovered workers, such as freelancers and the self-employed, as well as some of those from other states who work in Washington on shoots done by out of state production companies.

The Washington State Film Office asks productions shot in Washington by out of state production companies to report their spending in the state. They count most of the mid to large productions and many, but certainly not all, of the small projects. Commercial and catalog photo shoots often do not report to the Film Office. ECONorthwest was able to summarize the data collected by the Film Office and, from our experience, make a reasonable determination of the non-reports. We estimate that of the \$51.6 million spent inside Washington by all out of state productions in 2001, slightly less than a third (\$15.9 million) went unreported.

The U.S. Bureau of Labor Statistics (BLS) regularly gathers employment and wage data for various occupations by surveying about 400,000 establishments. The BLS covers occupations such as film and video editors, photographers, producers, actors, movie camera operators, and set designers on both a national and local level. Using the 2001 BLS occupation data, ECONorthwest estimated the amount of in-house commercial photography, film, and video work.

Table 1 is a list of some of the key occupations that are prevalent in the film and video production and postproduction industries, and in commercial photography. The BLS reports data on paid employees for Washington establishments, which does not include the self-employed, certain small companies, or out of state crews working in Washington. From the table we see that fairly substantial numbers of workers in these occupations are employed in industries outside of the film, video, television, and the photographic services industries.

**Table 1: Film, Video & Photography Related Occupations, 2001 Employment in Washington**

<b>Occupation</b>	<b>Washington Employees by Occupation</b>	<b>Film, Video, Photography &amp; Other Service Industries</b>	<b>Television, Newspapers &amp; Related Industries</b>	<b>Apparent In-House Employment in Other Industries</b>
Audio visual equipment technicians	810	650	50	110
Film & video camera operators	270	50	180	40
Film & video editors	140	30	100	10
Photographers	950	590	120	240
Producers & directors	790	470	270	50
Set & exhibit designers	150	120		30

*Source: BLS 2001 Occupational Employment Statistics, United States.*

### 3.2 Size of the Film, Video, and Commercial Still Photography Industries

ECONorthwest determined that the output from film and video production in Washington was approximately \$316.2 million in 2001. Table 2 lists some of the key economic statistics. The industries spent over \$84.5 million on payrolls to Washington-based employees and contributed \$48.9 million to the incomes of proprietors, which are mostly freelancers and other self-employed workers in the industry. Proprietors' income is reported here net of business expenses. In total the industries supported 2,189 full and part time workers in addition to 1,700 self-employed persons.

**Table 2: Film and Video Production in Washington, Total of Domestic Industry, Out of State Crews, In-House Production, and Freelancers in 2001**

<b>Industry Segment</b>	<b>Output</b>	<b>Payroll</b>	<b>Proprietors' Income</b>	<b>Paid Employee Jobs</b>	<b>Self Employed Persons</b>
<u>Washington-Based:</u>					
Commercial photography	\$85,564,681	\$22,864,153	\$17,616,065	777	637
Motion picture & video production	153,687,341	45,951,708	24,909,638	957	884
Postproduction services	30,694,742	12,094,262	893,217	350	30
<u>Out-of-state crews</u>	51,551,954	3,675,173	5,512,759	105	147
Less duplicate output	(5,280,066)				
<b>Total</b>	<b>\$316,218,652</b>	<b>\$84,585,296</b>	<b>\$48,931,679</b>	<b>2,189</b>	<b>1,699</b>

*Note: Purchases of commercial photography, film & video production, and postproduction services by out of state crews from Washington providers are deducted to offset double counting.*

Four out of every nine persons engaged in commercial photography in Washington during 2001 (outside of the printed news media) were either freelancers or employees of companies whose main business was not commercial photography. Still, the commercial photography companies did capture the bulk of the business and accounted for well over half the output.

In motion picture and video production, close to half the people working in the area were freelancers. This explains why in Table 2, the amount of proprietors' income for the industry was so high—\$24.9 million. The money self-employed persons earn, net of business expenses, is counted as proprietors' income and not wages.

Out of state crews spent almost \$51.6 million in Washington in 2001. They hired the annual equivalent of 105 workers and 147 self-employed people in Washington. Most worked between one day and two weeks on each production. Thus, gross hiring of Washington residents by out of state crews amounted to approximately 5,800 individual job assignments.

In Table 3, we show where out of state production companies spent their money in Washington in 2001. Much of it was on local labor—\$9.2 million. Lodging is also a major expense item for this industry. We estimate that \$5.8 million was spent on motels and hotels in Washington State by out of state crews in 2001. Other major spending categories include car rentals, food, personal and business services, and construction. About one million was spent on Federal, State and local government services for such items as permits and park fees.

**Table 3: Spending in Washington by Out of State Production Companies, 2001**

<b>Local Spending by Type</b>	<b>Amount</b>
Labor (including self employed)	\$9,187,932
Transportation	2,844,515
Lodging	5,792,124
Car & truck rentals	3,176,328
Motor fuels and service stations	1,472,374
Food & beverage places	2,451,009
Other retail	3,344,530
Construction & repair	1,914,833
Equipment rentals	3,176,328
Personal services	2,924,026
Business services	8,138,151
Government services	1,031,039
Other location expenses	6,098,766
<b>Total Local Spending</b>	<b>\$51,551,954</b>

As shown in Table 4, the domestic industry accounted for nearly 65 percent of the total direct output. In-house production contributed about \$12.9 million to the total, while freelancers and out of state crews each generated output that was slightly more than \$50 million each in the year 2001.

**Table 4: Total Direct Output by Industry Component, 2001**

<b>Industry Component</b>	<b>Total Output</b>
Domestic industry	\$204,698,555
In-house production	12,871,828
Freelancers	52,376,381
Out-of-state crews	51,551,954
Less duplicate output	(5,280,066)
<b>Total</b>	<b>\$316,218,652</b>

About \$5.3 million of the total output is double counted in two or more sectors. ECONorthwest deducted this to arrive at a net total output of \$316.2 million. Duplication occurs because the output of one sector can contain spending on another sector. For example an out of state commercial crew may pay a local commercial photographer for some work, which causes the output of both components to rise. Instances of such potential double counting must be deducted in the analysis.



### 3.3 Average Wages

As a rule, film, video, and commercial photography occupations pay above average wages. Calculating average wages for the industries is problematic because so much labor income is earned by the self-employed whose compensation is not reported in state wage rate data. In addition, many paid employees work irregular hours or work for companies in unrelated industries. Further complicating the analysis is the preponderance of part-time work. Film, video, and commercial photo shoot jobs may last only a few days at a time. As a result, IMPLAN and covered employment data cannot readily be used to calculate the average annual wage for full time employment in film and video production.

To provide some insight as to the fulltime annual wage rates of occupations in the domestic industry, we turned to the BLS occupational employment and wage survey for Washington. Shown in Table 5, we see that for most occupations the annualized compensation of employees in fields prevalent in the film, video, and commercial photography production areas are generally well above the statewide average of \$37,670 for all occupations in 2001.

**Table 5: Average Wages of Paid Employees in Film, Video, and Commercial Photography Occupations in Washington, 2001**

<b>Occupation</b>	<b>Average Annual Fulltime Wage by Occupation</b>
Actors	\$44,450
Audio & video equip. technicians	39,620
Film & video camera operators	35,600
Film & video editors	42,950
Photographers	40,190
Producers & directors	58,080
Set & exhibit designers	32,880
Sound engineering technicians	52,680
All occupations in Washington	\$37,670



## 4. ECONOMIC AND FISCAL IMPACTS

The analysis in Table 4 shows that film and video production contributed \$316.2 million in direct output to the state economy. ECONorthwest used IMPLAN to track the impacts, which resulted from that production, and found that over \$656 million in total economic output was attributable to it.

### 4.1 Economic Impacts

The results of the IMPLAN model are summarized in Table 6. It shows the contribution to economic output from direct, indirect, and induced sources. The wage impacts of these industries are great because they tend to be both labor intensive and well paying. Over \$110 million in indirect and induced wages earned in Washington in 2001 can be traced back to film and video production. A total of 8,033 jobs were tied to these industries.

**Table 6: Economic Impacts Attributable to Washington Film and Video Production in 2001**

Impact Type	Output	Wages	Proprietors' Income	Total Labor Income	Other Income	Jobs
Direct	\$316,218,700	\$84,585,300	\$48,931,700	\$133,517,000	\$5,006,600	3,888
Indirect	175,028,200	56,344,000	9,561,600	65,905,600	27,870,000	2,221
Induced	164,838,400	53,738,700	7,736,400	61,475,100	31,312,400	1,925
Total	\$656,085,300	\$194,668,000	\$66,229,700	\$260,897,700	\$64,189,000	8,033

Film and video production affect Washington's economy *directly*, through the purchases of goods and services from suppliers in the state, and *indirectly*, as those suppliers are compelled to buy goods and services elsewhere in Washington so that they can fulfill the orders they get from the industry. Those "intermediate" purchases of goods and services work their way through the economy from one supplier to the next, although their dollar impact lessens quickly after a few steps (because some money is spent out of state, taxed, or saved). The value of the indirect output totaled \$175 million.

In addition to spending on goods and services, the industries hire people, cause other businesses to hire people, and contract with freelancers and local small business owners. This puts more money in the hands of Washingtonians and *induces* further spending in the State. The recipients of personal income tend to spend their earnings in state whereas businesses that are indirect suppliers are more apt to buy products from out of state so that they may fulfill orders. The output from induced impacts was nearly \$165 million, which when combined with direct and indirect makes the total economic impact of film, video, and commercial photography just over \$656 million in 2001.

Table 7 shows the distribution of impacts across sectors of the Washington economy. Film and video production is shown separately on the table, although most of that activity occurs in the service sector. Money spent by these industries and those who work in them is widely spread throughout the state economy. This is a consequence of the high local labor content of film, video, television movie, commercials, and commercial still photography and their relatively low reliance on purchases of goods made out of state. The results clearly demonstrate the importance of these industries on the economic vitality of the Washington.

**Table 7: Total Economic Impacts by Sector Attributable to Film, Video, and Commercial Photography Production in Washington in 2001**

Industry Sector	Output	Wages	Proprietors' Income	Labor Income	Other Income	Jobs
Film & video production	\$316,218,700	\$84,585,300	\$48,931,700	\$133,517,000	\$5,006,600	3,888
<u>Elsewhere in the Economy:</u>						
Natural Resources	\$2,571,800	\$556,900	\$113,000	\$669,900	\$261,700	40
Construction	20,078,100	7,182,700	2,131,100	9,313,800	569,000	195
Manufacturing	19,967,600	3,630,000	266,500	3,896,500	2,343,400	86
Transportation, Communications & Utilities	31,785,300	7,219,000	1,717,600	8,936,600	8,240,500	160
Wholesale & Retail Trade	73,283,500	31,082,900	1,849,200	32,932,100	11,088,300	1,378
Finance, Insurance & Real Estate	49,111,800	7,677,000	1,535,200	9,212,200	20,803,900	246
Services	127,688,300	48,809,500	9,685,500	58,495,000	13,084,500	1,975
Government	15,380,200	3,924,800	-	3,924,800	2,791,100	66
<b>Total</b>	<b>\$656,085,300</b>	<b>\$194,668,000</b>	<b>\$66,229,700</b>	<b>\$260,897,700</b>	<b>\$64,189,000</b>	<b>8,033</b>

## 4.2 State and Local Revenue Impact

Film, video, and commercial photography production in Washington stimulates state and local taxes primarily through higher sales and property values. It also stimulates other revenues, such as fees. The IMPLAN model, using State and local government data accounts for these revenue impacts. . As shown in Table 8, the IMPLAN model estimated the fiscal impact to be over \$18.4 million. That is the amount of money Washington and its local communities would have lost if there were no film, video, and commercial photography production in the State in 2001.

**Table 8: Net Impact of Film, Video, and Commercial Photography Production on State and Local Taxes & Revenues in Washington in 2001**

Type	Amount
B&O, Commercial Property, Other Indirect Business Taxes & Fees	6,403,700
Miscellaneous Direct Corporate Payments to Government	\$6,800
Personal Property Taxes and Sales Taxes	11,851,600
Unemployment and Other Social Insurance Taxes	158,200
<b>Total</b>	<b>\$18,420,300</b>

## 5. CONCLUSION

While many people associate service industries with low paying jobs, film and video production is a classic example of a high wage service sector. Unlike many other high wage industries, their demands on physical infrastructure and government services are relatively modest. In addition, they spend disproportionately large sums locally.

Thus, as would be expected, this impact analysis reveals that film and video production in Washington was a substantial contributor to the Washington economy. It accounted for 8,033 jobs, \$656.1 million in economic output, \$260.9 million in local labor income, and \$18.4 million in state and local taxes in 2001. Furthermore, the starting point of nearly all this economic activity either came from out of state or was displaced from out of state by local firms choosing to spend their money locally. Therefore, if the industry had not been in-place virtually all of the economic impacts would have been a net lost to Washington.

Overwhelmingly the purview of small businesses and self-employed Washingtonians, and with no single, dominant industry location, it is perhaps understandable that public awareness of the film and video sector is not great. Nonetheless, it is a critical source of employment for many Washingtonians and of services essential for the growth and development of many businesses in the state.